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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,816	01/30/2004	Nobumasa Suzuki	03599.000093	3133

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

LUND, JEFFRIE ROBERT

ART UNIT	PAPER NUMBER
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1763

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/766,816

Applicant(s)

SUZUKI, NOBUMASA

Examiner

Jeffrie R. Lund

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/13/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Karner et al, US Patent 5,616,373.

Karner et al teaches a plasma processing chamber that includes: a process chamber 1 that accommodates an object 4 to be processed and generates plasma; a gas introducing part 7 for introducing gas into the process chamber; a mechanism 3a that arranges the object in the flow of the gas such that the object is between the gas introducing part 7 and the plasma generating region 23c in the flow of the gas; and an exhaust mechanism 72 for exhausting the gas; and a conductance adjuster 24 having a plurality of holes 21c. (Figure 6) The specific plasma treatment is an intended use of the apparatus. Karner et al is capable of performing a plasma oxidation or nitridation.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29

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USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-6 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of copending Application No. 11/295,667 ('667) in view of Karner et al, US Patent 5,616,373.

'667 teaches: a process chamber; a gas introduction part arranged closer to the object than a plasma generating region; an exhaust mechanism arranged closer to the plasma region (claim 1); a conductance adjuster with holes (claims 2 and 3); the exhaust mechanism located on the side of the plasma region partitioned by the conductance adjuster (claim 4); and a first and second gas inlet (claim 5).

'667 differs from the present invention in that it does not teach that the object is between the gas introducing part and the plasma generating region in the flow of the gas.

Karner et al was discussed above and includes an object 4 located between the gas introducing part 15 and a plasma generating region 23c in the flow of the gas.

The motivation for placing the object in the flow of the processing gas is to expose the surface of the object to the process gases to process the object.

Therefore it would have been obvious to one of ordinary skill in the art at the time

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the invention was made to place the object of '667 in the flow of the gas as taught by Karner et al.

This is a provisional obviousness-type double patenting rejection.

Response to Arguments

5. Applicant's arguments filed January 19, 2007 have been fully considered but they are not persuasive.

In regard to the argument that:

In the apparatus shown in Fig. 6 in Karner, the gas introduced from the inlet arrangement 7 flows around the substrates 4 and is exhausted from the draw-off connections 72 without passing through the plasma generating area 23c. Also, while a scavenging gas introduced from the supply line 68 flows through the plasma generating area 23c, this gas is exhausted from the draw-off connections 72 without passing around the substrates 4. Clearly, in view of such movement of the gases, the components of the apparatus in Karner do not have the same structural relationships as in the present claims.

Furthermore, Karner teaches that the openings in the orifice of the distribution plate in the apparatus shown in Fig. 6 are specifically designed so that the pressure in the ionization or cathode chamber is greater than in the treatment space (see col. 9, line 65, to col. 10, line 2). Thus, the apparatus in Karner is specifically structured so that the pressure differential between the chambers does not place the plasma generating region in the flow path of the gas introduced from inlet openings 9, i.e., the gas from the inlet openings 9 does not enter plasma or ionization chamber 23. Therefore, according to the structural arrangement of components in Fig. 6 of Karner, the mechanism does not arrange the object such that it is between the gas introducing part and the plasma generating region in the flow of the gas, as is presently claimed.

The Examiner disagrees. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e. that the gas flows from the gas introducing part around the mechanism and to the plasma generating region) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The claims do not require that the gas flow from the gas inlet past the mechanism that arranges the object to the plasma

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generating region. Claim 1 only requires that the "mechanism that arranges the object in a flow of the gas such that the object is between the gas introducing part and a plasma generating region in the flow of the gas". In figure 6, Karner et al clearly teaches that the mechanism 3a is located between the gas introducing part 7 and a plasma generating region 23c in the flow of the gas (as indicated by the arrows). Furthermore, it is not clear if the specification supports the idea of the gas flowing from the gas introducing part, past the mechanism to the plasma generating region. The Examiner believes that the gas flow from the gas introducing part 105 of the present invention does not pass through the plasma generating area P, because, like Karner et al, the exhaust means 106 is located between the plasma generating area and the gas introducing part, and the gas introduced from the inlet arrangement 105 flows around the substrates 102 and is exhausted from the draw-off connections 106 without passing through the plasma generating area P (see the figures).

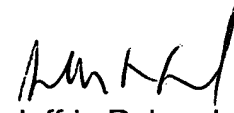
Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrie R. Lund whose telephone number is (571) 272-1437. The examiner can normally be reached on Monday-Thursday (10:00 am - 9:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 123-456-7890. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeffrie R. Lund
Primary Examiner
Art Unit 1763

JRL
3/5/07